

Date: Thursday, 10/11/2007 2:50:50 PM
 User: Kim Johnston

Process Sheet

split
 SB 07/11/12

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: BLOWER INLET ADAPTER
Job Number	: 35109		
Estimate Number	: 12318		
P.O. Number	:	Part Number	: D3473043
This Issue	: 10/11/2007 S.O. No. :	Drawing Number	: D3473 REV.B
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : SMALL / MED FAB	Drawing Revision	: B
Previous Run	: 32040	Material	:
Written By	:	Due Date	: 10/25/2007 Qty: 4 Um: Each
Checked & Approved By	:		
Comment	: est rev. A 06.03.02 new issue EC Est Rev:B As per Rev B 06-05-24 JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	D34735	VERTICAL TUBE
-----	--------	---------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty	Part number	Description	Batch
1	D3473-5	tube	B34407 B34420

mf 07-10-16 PTO

2.0	D34733	COVER
-----	--------	-------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty	Part number	Description	Batch
1	D3473-3	Cover	B34419

mf

3.0	D34739	FLANGE
-----	--------	--------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty	Part number	Description	Batch
1	D3473-9	Flange	B34422

mf

4.0	D34731	DUCT
-----	--------	------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty	Part number	Description	Batch
1	D3473-1	Duct	B34418

mf 07-10-16

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
07/10/17	8	Split u/o -1 1 was made balance -2 3 piece	SB	07/10/17	3	07-11-16	07-11-16	

Part No: D3473-043 PAR #: _____ Fault Category: Roll/Ass ^{med & small} NCR: Yes No DQA: Yes Date: 07.11.16
 QA: N/C Closed: Yes Date: 07.11.19

NCR: <u>35109</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07/10/16	8	1 piece D3473-5 B 28307 was scrap didn't fit on D3473-1		Scrap + destroy	SB 07/10/16	07.10.16	07.10.16	07.11.16
		2 piece of D3473-3 were scrap because didn't fit on D3473-1		Scrap - destroy	SB 07/10/25	07.10.25	07.10.25	07.11.16

NOTE: Date & initial all entries

Date: Thursday, 10/11/2007 2:50:50 PM

User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLOWER INLET ADAPTER

Job Number: 35109

Part Number: D3473043

Job Number:



Seq. #:

Machine Or Operation:

Description:

5.0

D34737

HORIZONTAL TUBE



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part number Description Batch

1 D3473-7 Tube B 28588, 3x B34421 MF

6.0

AN960C416L

WASHER



Comment: Qty.: 2.0000 Each(s)/Unit Total: 8.0000 Each(s)

Pick:

Qty Part number Description Batch

2 AN960C416L washer M104936 MF

7.0

NAS1031C3W

Nutplate



Comment: Qty.: 6.0000 Each(s)/Unit Total: 24.0000 Each(s)

Pick:

Qty Part number Description Batch

X 6 NAS1031C3W Nutplate M105569 x .13mx, M105728 x 11mx, MF 07-10-16

8.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Drill hole as per dwg D3473

2-Spot weld as per dwg D3473

MF 07-11-12 (3)

MF 07-10-16 (1)

9.0

QC11

VISUAL INSPECTION OF SPOT WELDING



Comment: VISUAL INSPECTION OF SPOT WELDING

MF 07-11-12 (3)

MF 07-10-17 (1)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: GA

MF 07-11-12 (3)

MF 07-10-17 (1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 10/11/2007 2:50:50 PM

User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLOWER INLET ADAPTER

Job Number: 35109

Part Number: D3473043

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

QC21

FINAL INSPECTION/W/O RELEASE



07.11.15 *[Signature]*

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



W 07.11.14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

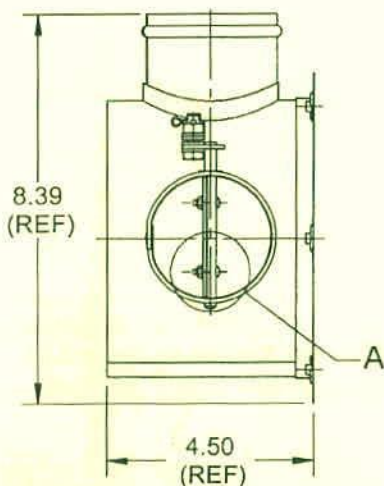
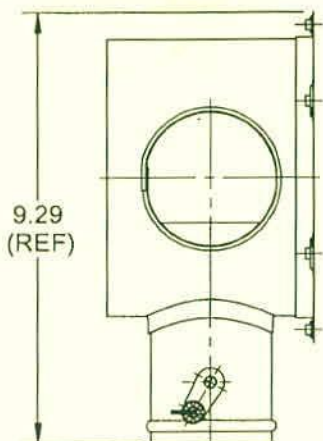
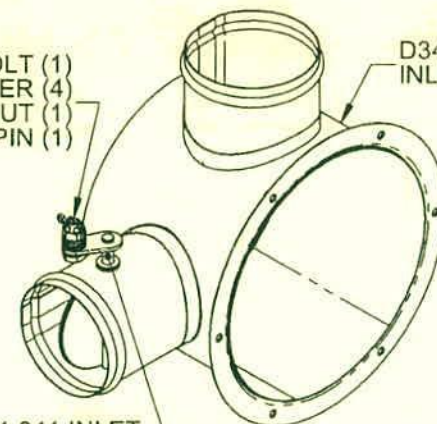
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART**RELEASED**
06-05-16

DESIGN 13	DRAWN BY 13	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. D3473	REV. B SHEET 1 OF 7
DATE 06.05.16		TITLE BLOWER INLET ADAPTER	SCALE 1:4
A	06.02.07	NEW ISSUE	
B	06.05.16	D3473-5F/-7F: 9.750 & 8.810 WERE 9.60 & 8.60	

**UNDER REVIEW**02.04.07
Dirk + Administration
(Chinab)D3470-9 BOLT (1)
AN960-416 WASHER (4)
AN310-4 NUT (1)
MS24665-153 COTTER PIN (1)D3474-041 INLET
VALVE SHAFT (1)D3473-043 BLOWER
INLET ADAPTER (1)D3474-041 INLET
VALVE SHAFT (REF)MS35206-217 SCREW
AN960-4L WASHER (1)
NAS679A04 NUT(1)
(2 PLACES)D3474-7 VALVE
SEAL (1)**DETAIL A**
SCALE 1:1
D3474-5 PLATE VALVE
(2 PLACES)**D3473-041 BLOWER INLET ADAPTER****NOTES:**

- 1) IDENTIFY WITH DART P/N D3473-041 USING FINE POINT PERMANENT INK MARKER
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -041	P/N	DESCRIPTION
X	D3473-041	BLOWER INLET ADAPTER
1	D3470-9	BOLT
1	D3471-043	BLOWER INLET WELDMENT
1	D3474-041	INLET VALVE SHAFT
2	D3474-5	BUTTERFLY VALVE
1	D3474-7	BUTTERFLY VALVE SEAL
1	AN310-4	NUT
2	AN960-4L	WASHER
4	AN960-416	WASHER
1	MS24665-153	COTTER PIN
2	MS35206-217	SCREW
2	NAS679-A04	NUT

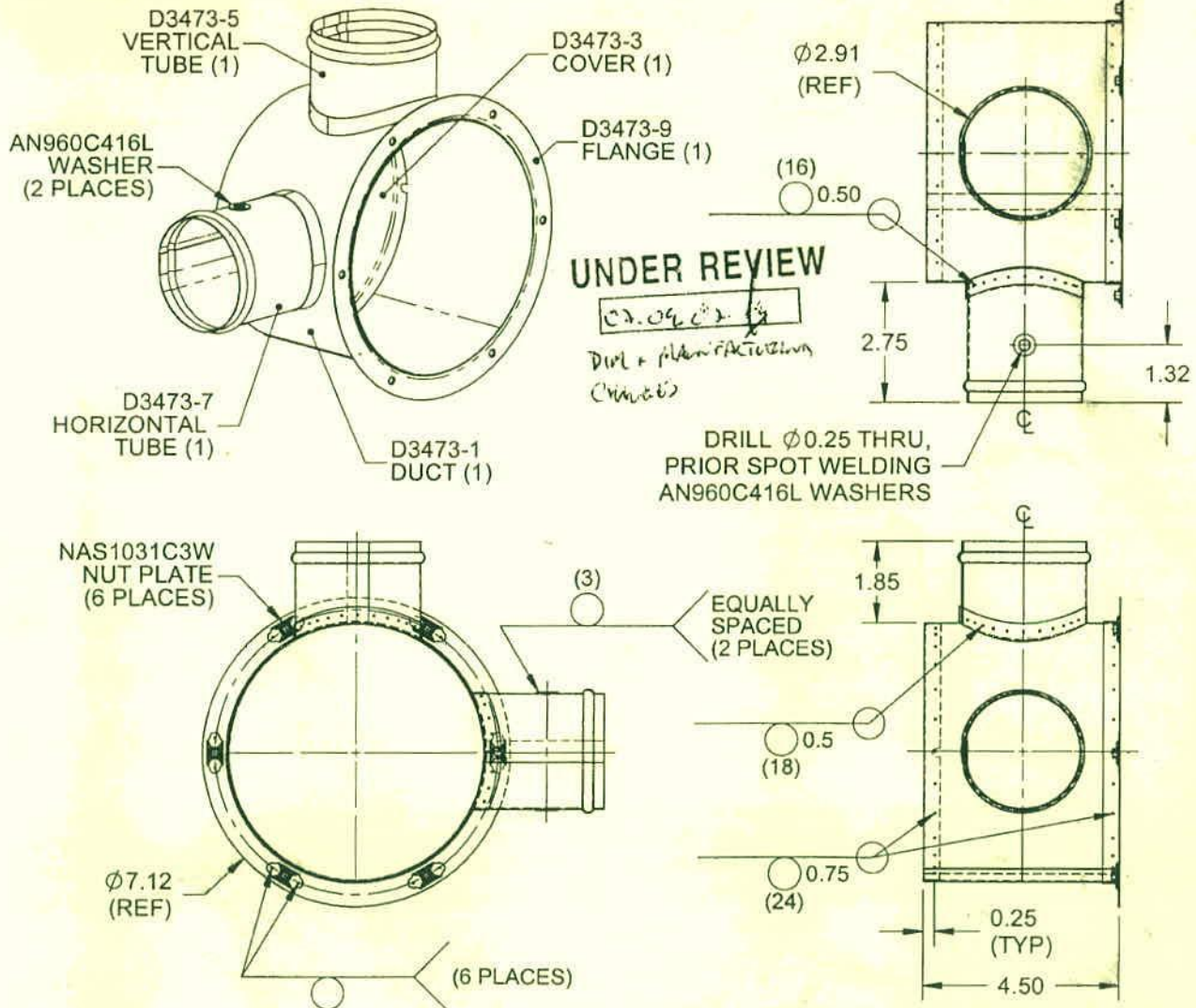
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. _____

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN B	DRAWN BY B	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. D3473	REV. B SHEET 2 OF 7
DATE 06.05.16		TITLE BLOWER INLET ADAPTER	SCALE 1:4

RELEASED
06.05.16**D3473-043 BLOWER INLET WELDMENT****NOTES:**

- 1) SPOT WELD PER DART QSI 004
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -041	P/N	DESCRIPTION
X	D3473-043	BLOWER INLET WELDMENT
1	D3473-1	DUCT
1	D3473-3	COVER
1	D3473-5	VERTICAL TUBE
1	D3473-7	HORIZONTAL TUBE
1	D3473-9	FLANGE
2	AN960C416L	WASHER
6	NAS1031C3W	NUT PLATE

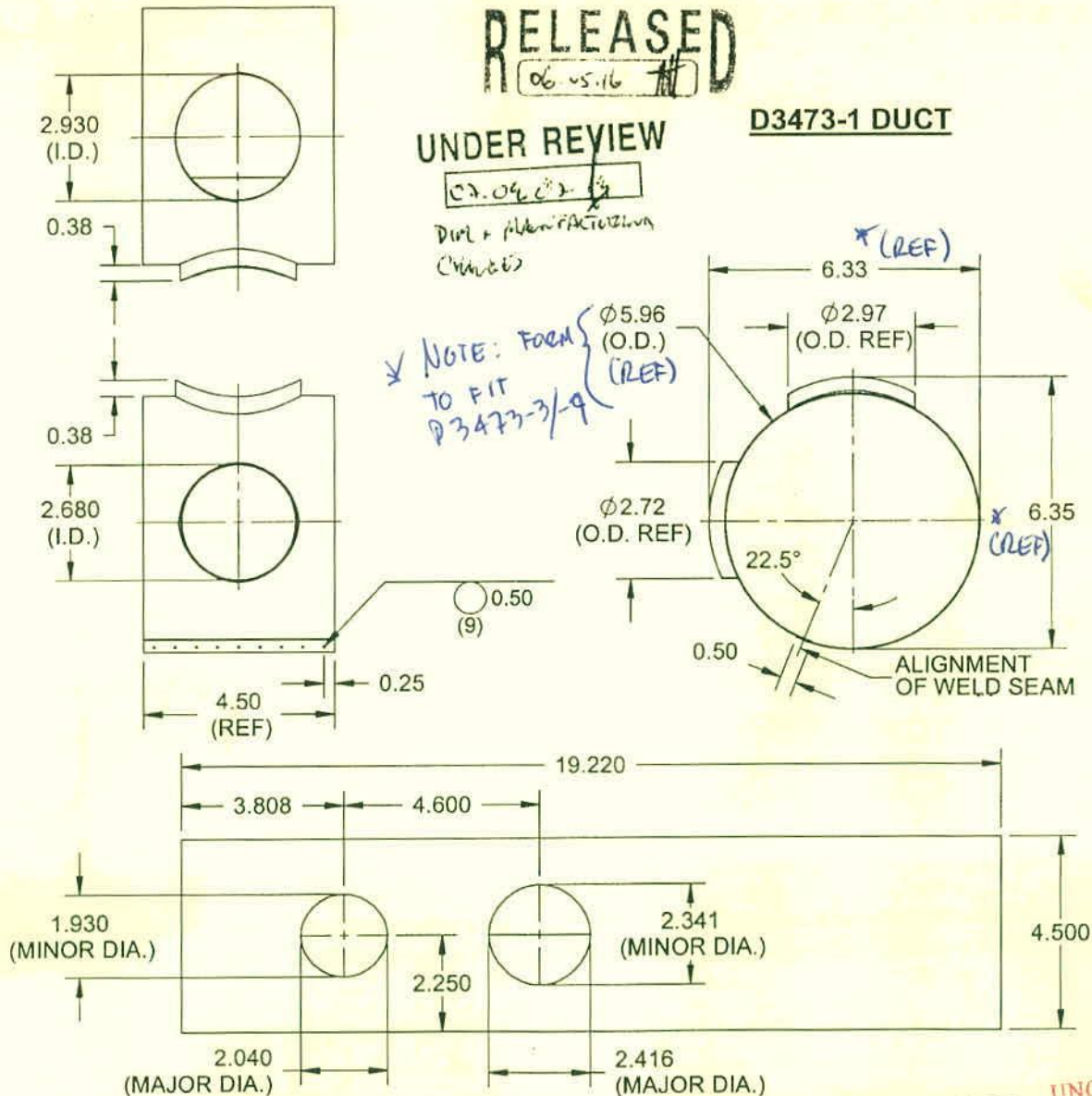
COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO.

DART

DESIGN 13	DRAWN BY 13	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 13	APPROVED 13	DRAWING NO. D3473	REV. B SHEET 3 OF 7
DATE 06.05.16	TITLE BLOWER INLET ADAPTER		SCALE 1:4

RELEASED
06-05-16**UNDER REVIEW**
07-06-16**D3473-1 DUCT**

x 507-10.12

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. _____

D3473-1F DUCT FLAT PATTERN**NOTES:**

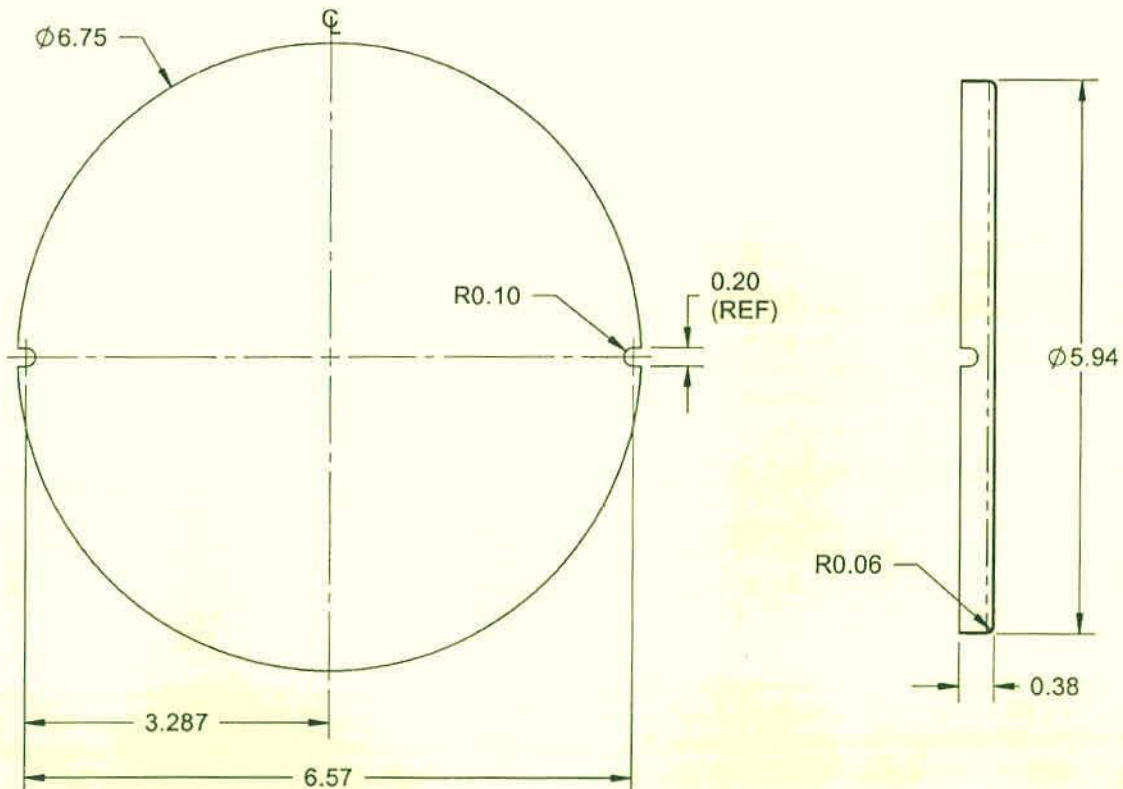
- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED)
2B FINISH 26 GAUGE SS (0.018 THICK)
- 2) SPOT WELD PER DART QSI 004
- 3) FINISH: NONE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) BREAK ALL SHARP EDGES 0.005 TO 0.010

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3473	REV. B SHEET 4 OF 7
DATE 06.05.16		TITLE BLOWER INLET ADAPTER	SCALE 1:2

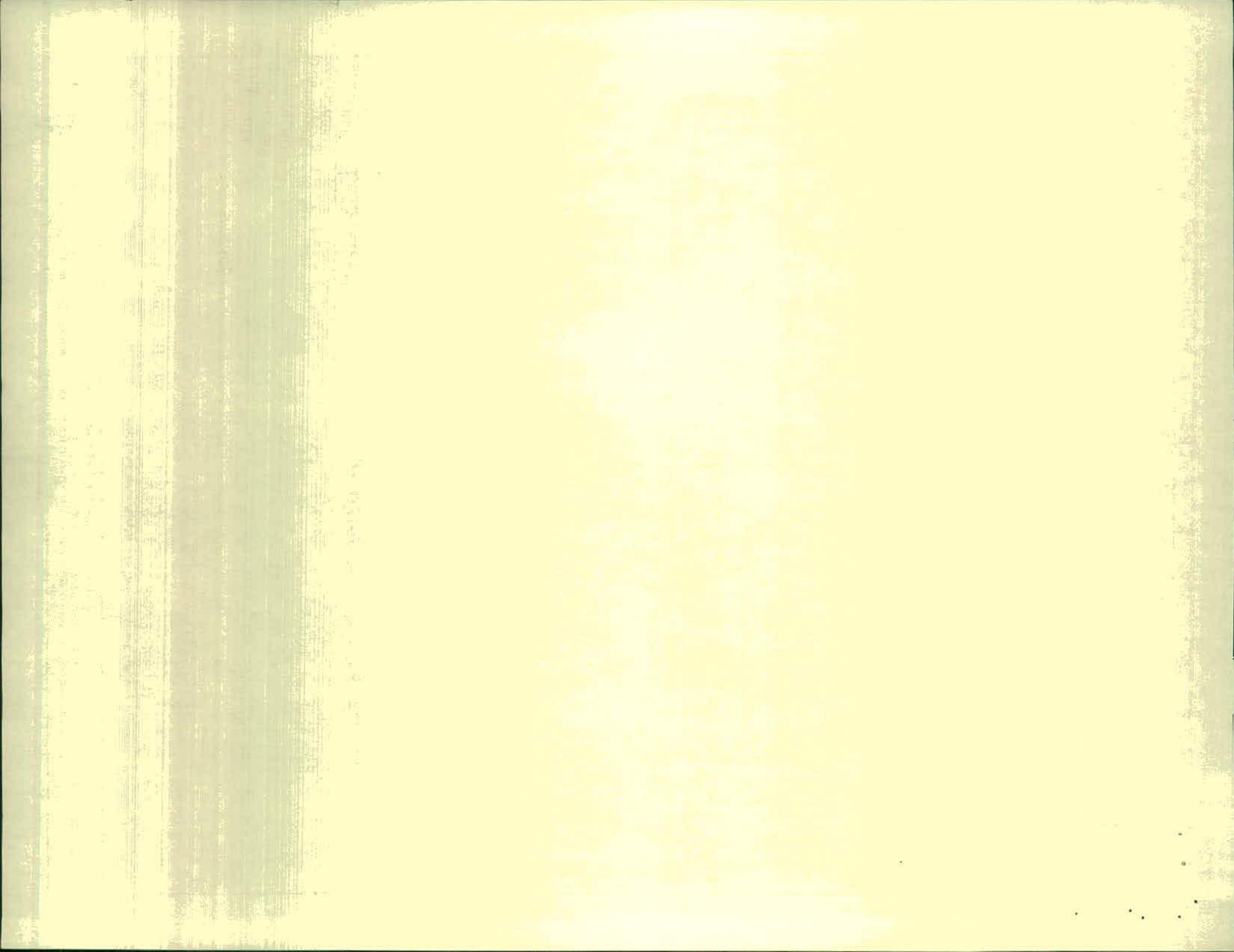
RELEASED
06-05-16 *[Signature]***UNDER REVIEW***07.09.16*
Dist. + Administration
(Chen)**D3473-3F COVER FLAT PATTERN****D3473-3 COVER****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH
26 GAUGE SS (0.018 THICK)
- 2) PART IS SYMMETRICAL ABOUT CENTERLINE
- 3) FINISH: NONE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. _____

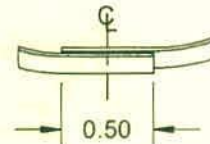
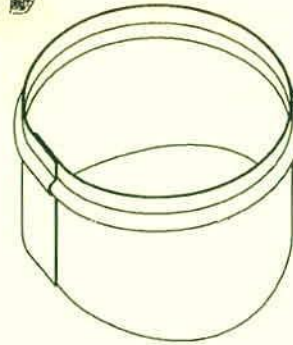
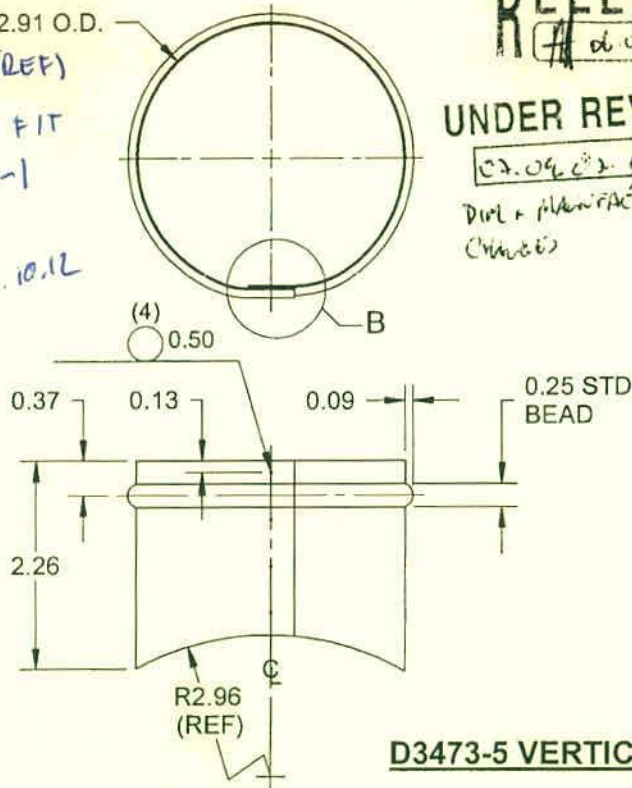
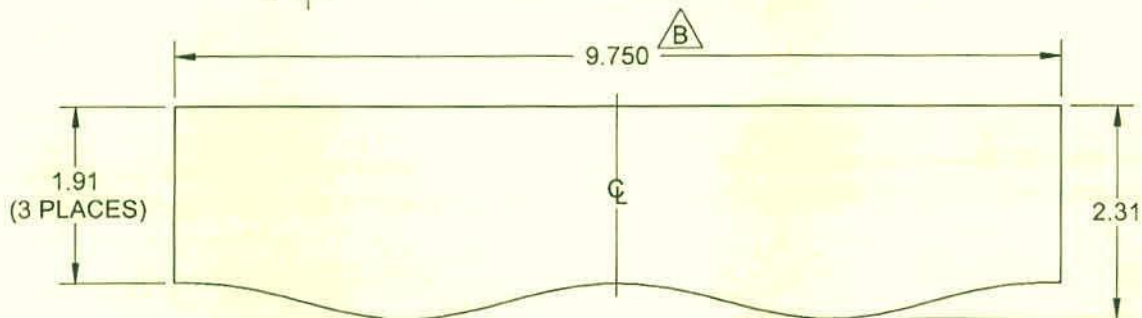
COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DART

DESIGN <i>B</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>H</i>	APPROVED <i>H</i>	DRAWING NO. D3473	REV. B SHEET 5 OF 7
DATE 06.05.16		TITLE BLOWER INLET ADAPTER	SCALE 1:2

RELEASED
*06.05.16***UNDER REVIEW**
07.09.16
Dirt + planification
*Change*Ø2.91 O.D.
(REF)*form to fit*
*D3473-1**107.10.12***DETAIL B**
SCALE 1:1**D3473-5 VERTICAL TUBE****D3473-5F VERTICAL TUBE FLAT PATTERN****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH
26 GAUGE SS (0.018 THICK)
- 2) SPOT WELD PER DART QSI 004
- 3) FINISH: NONE
- 4) FLAT PATTERN IS SYMMETRICAL ABOUT CENTERLINE
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) BREAK ALL SHARP EDGES 0.005 TO 0.010

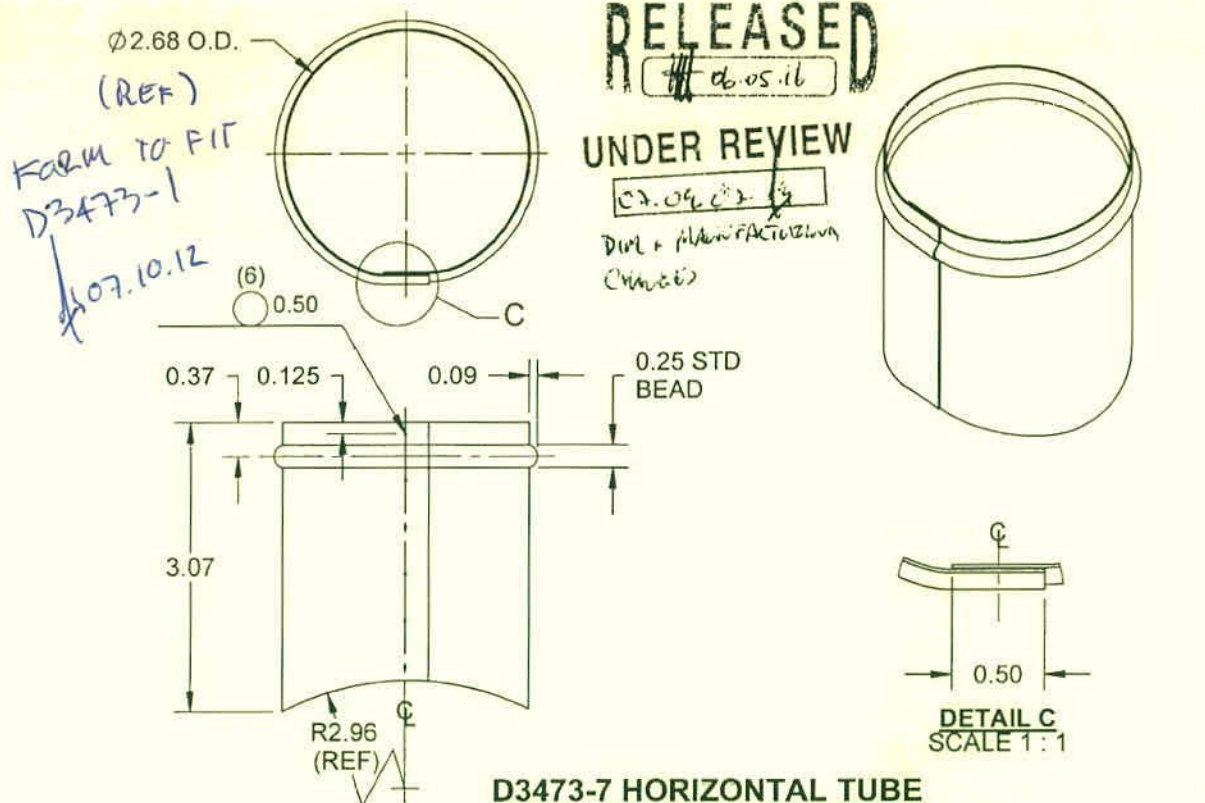
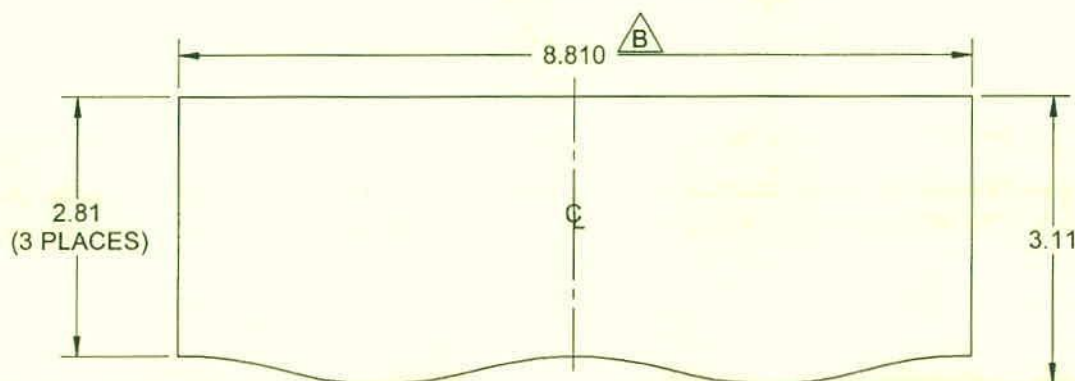
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. _____

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN <i>B</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>H</i>	APPROVED <i>H</i>	DRAWING NO. D3473	REV. B SHEET 6 OF 7
DATE 06.05.16		TITLE BLOWER INLET ADAPTER	SCALE 1:2

**D3473-7 HORIZONTAL TUBE****D3473-7F HORIZONTAL TUBE FLAT PATTERN****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH
26 GAUGE SS (0.018 THICK)
- 2) SPOT WELD PER DART QSI 004
- 3) FINISH: NONE
- 4) FLAT PATTERN IS SYMMETRICAL ABOUT CENTERLINE
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. _____

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

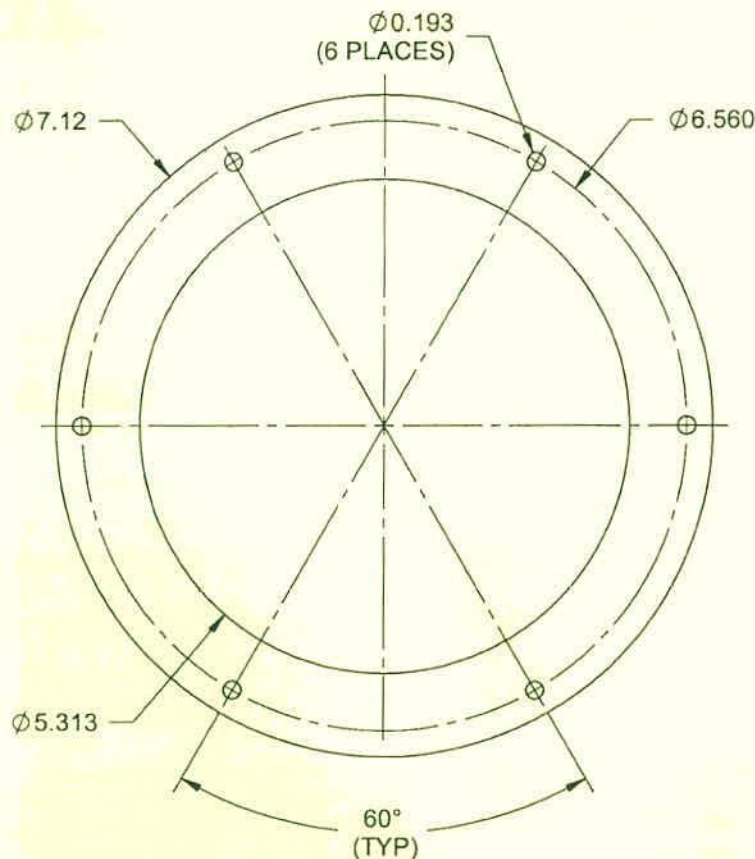
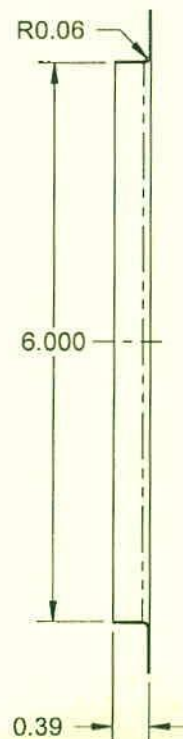
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN <i>B</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>H</i>	APPROVED <i>H</i>	DRAWING NO. D3473	REV. B SHEET 7 OF 7
DATE 06.05.16	TITLE BLOWER INLET ADAPTER		SCALE 1:2

UNDER REVIEW

02.04.16
Dim + identification
(checked)

RELEASED
06.05.16**D3473-9F FLANGE FLAT PATTERN****D3473-9 FLANGE
BENDING DETAIL****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH 26 GAUGE SS (0.018 THICK) (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. _____

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

THIS DOCUMENT CONTAINS NEITHER RECOMMENDATIONS NOR CONCLUSIONS OF THE NATIONAL BUREAU OF STANDARDS. IT IS THE PROPERTY OF THE NATIONAL BUREAU OF STANDARDS AND IS LOANED TO YOUR ORGANIZATION; IT AND ITS CONTENTS ARE NOT TO BE DISTRIBUTED OUTSIDE YOUR ORGANIZATION.

SPOT WELD TEST RECORD

AMS-W-6858A

CLASS 'C'

TEST NO#: 40

EMPLOYEE: Melanie Tauter

PART NUMBER: D 3473-043

JOB NUMBER: B35109

MATERIAL TYPE: 304L

MATERIAL THICKNESS: 0.075

GROUP SPECIFICATION

☐

Group 1: Aluminum & magnesium

☐

Group 2: Iron; nickel; cobalt

☒

Group 3: Titanium SS

TEST RESULTS

	PASS	FAIL
VISUAL:	[<input checked="" type="checkbox"/>]	[<input type="checkbox"/>]
PENETRATION:	[<input checked="" type="checkbox"/>]	[<input type="checkbox"/>]
PULL STRENGTH:	[<input checked="" type="checkbox"/>]	[<input type="checkbox"/>]

PSI Reading: _____

Qualified in accordance with standard AMS-W-6858A and QSI 004 (ref: 4.3)

DATE OF TEST COUPON: 07/11/12

QUALIFIER: SB

